



Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising:

reading data from a nonvolatile destructive read memory location, the data encoded by an error correction code;

determining if the data read is corrupt; and

writing a failure codeword in the memory location if the data read is corrupt,

wherein the failure codeword is chosen within limits ~~properties~~ of the error correction code so that the failure codeword is not interpreted as a read value and [[its]] a

mathematical distance of the failure codeword from all correctable data patterns of the error correction code is greater than the minimum distance of the error correction code.

2-5. (Canceled)

6. (Original) The method of claim 1 wherein the data read includes coding bits which are utilized for error correction of the data.

7. (Canceled)

8. (Original) The method of claim 1 wherein determining if the data read is corrupt includes,

determining if the data read is different from the data originally written to the memory location.

9. (Original) The method of claim 1 further comprising:
writing the data to the memory location from where it was read if the data is not corrupt.

10. (Currently Amended) An apparatus comprising:
a data storage device;
a read device coupled to the data storage device to read data from a nonvolatile read-destructive memory location in the data storage device; and
an error correction code decoder coupled to the read device to determine if the data read is corrupt, and if so, cause a failure codeword to be written to the memory location from where the data was read, wherein the failure codeword is chosen within limits ~~properties~~ of the error correction code so that the failure codeword is not interpreted as a read value and [[its]] a mathematical distance of the failure codeword from all correctable data patterns of the error correction code is greater than the minimum distance of the error correction code employed.

11-13. (Canceled)

14. (Original) The apparatus of claim 10 wherein the data read is corrupt if it is different from the data originally written to the memory location.

15. (Original) The apparatus of claim 10 further comprising:
a write device coupled to the data storage device to store data into the data storage device.

16. (Original) The apparatus of claim 15 wherein the write device is coupled to the read device to write back the data read by the read device to the memory location from where it was read if the data is not corrupt.

17. (Original) The apparatus of claim 15 further comprising:
an encoding device coupled to the write device to encode data according to an error correction code before it is written to the data storage device.

18. (Original) The apparatus of claim 15 further comprising:
a controller coupled to the write device and the read device to synchronize access to the data storage device.

19. (Currently Amended) A machine-readable medium comprising at least one instruction to preserve the failure state of a memory location, which when executed by a processor, causes the processor to perform operations comprising:

reading data from a nonvolatile destructive read data storage device, the data encoded by an error correction code;

determining if the data read is corrupt; and

writing a failure codeword in the memory location if the data read is corrupt, wherein the failure codeword is chosen within limits ~~properties~~ of the error correction code so that the failure codeword is not interpreted as a read value and [[its]] a mathematical distance of the failure codeword from all correctable data patterns of the error correction code is greater than the minimum distance of the error correction code.

20. (Canceled)

21. (Original) The machine-readable medium of claim 19 further comprising at least one instruction which causes the processor to perform operations comprising:

decoding the data read based on an error correction code.

22. (Canceled)

23. (Original) The machine-readable medium of claim 19 wherein determining if the data read is corrupt includes,

determining if the data read is different from the data originally written to the memory location.

24. (Original) The machine-readable medium of claim 19 further comprising at least one instruction which causes the processor to perform operations comprising:

writing the data to the memory location from where it was read if the data is not corrupt.

25. (Previously Presented) An integrated circuit comprising:

a first processing unit configured to read data from a nonvolatile read-destructive data storage device; and

a second processing unit communicatively coupled to the first processing unit to decode the read data, determine if the data is corrupt, and if so, cause a failure codeword to be written to the memory location from where the data was read, wherein the failure codeword is chosen within limits properties of the error correction code so that the failure codeword is not interpreted as a read value and [[its]] a mathematical distance of the failure codeword from all correctable data patterns of the error correction code is greater than the minimum distance of the error correction code.

26. (Canceled)

27. (Original) The integrated circuit of claim 25 wherein the second processing unit decodes the read data according an error correction code.

28. (Canceled)

29. (Original) The integrated circuit of claim 25 wherein the data read is corrupt if it is different from the data originally written to the memory location.

30. (Original) The integrated circuit of claim 25 wherein the read device causes the read data to be written back to the memory location from where it was read if the data is not corrupt.